USGS science for a changing world

Earthquake Shaking — Orange Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

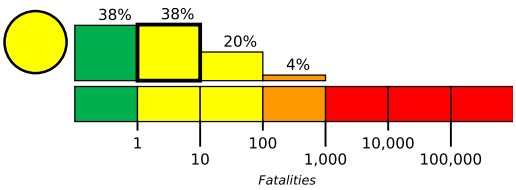
M 6.0, 86km ENE of Arzak, China

Origin Time: 2020-01-19 13:27:56 UTC (Sun 19:27:56 local)
Location: 39.8353° N 77.1097° E Depth: 5.6 km

PAGER Version 8

Created: 2 weeks, 0 days after earthquake

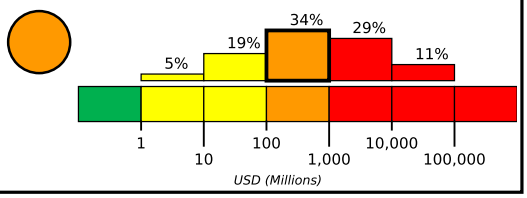
Estimated Fatalities



Orange alert for economic losses. Significant damage is likely and the disaster is potentially widespread. Estimated economic losses are less than 1% of GDP of China. Past events with this alert level have required a regional or national level response.

Yellow alert for shaking-related fatalities. Some casualties are possible.

Estimated Economic Losses

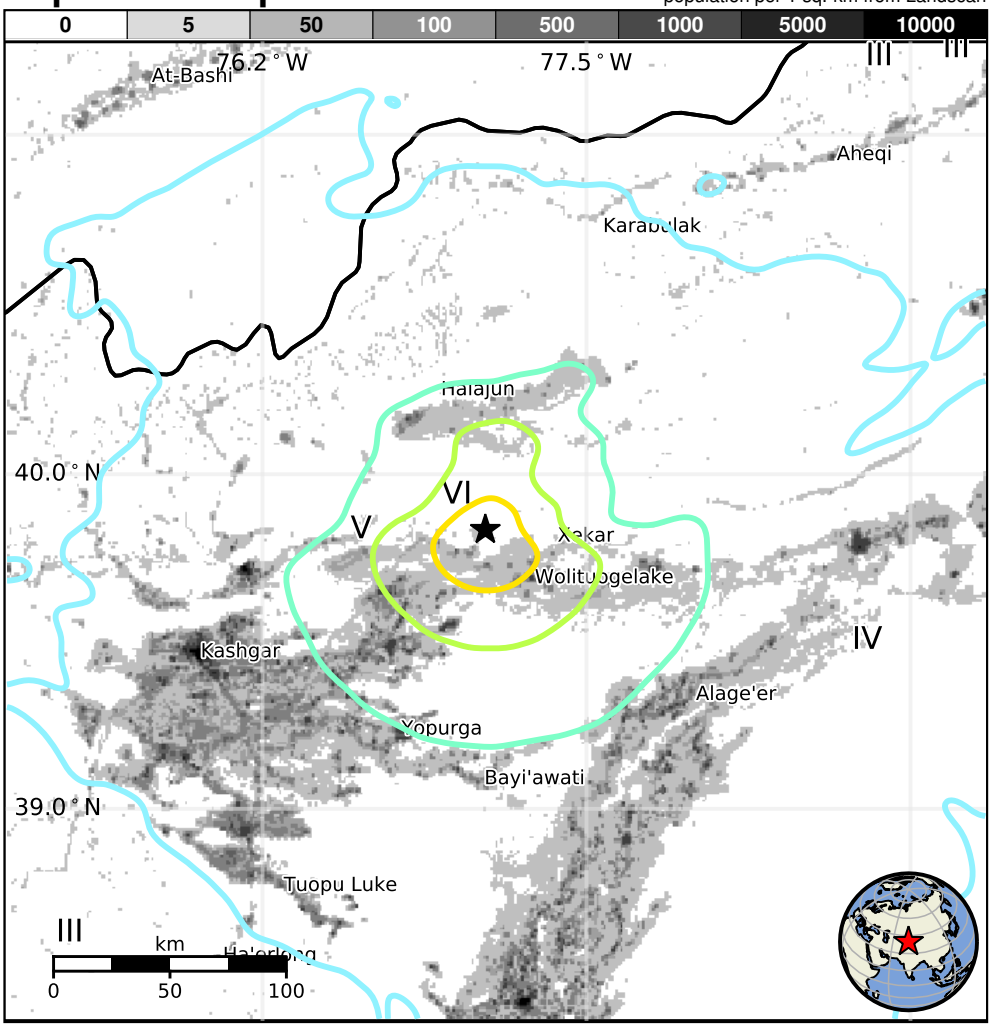


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	84k*	3,394k	318k	106k	28k	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are adobe block and concrete/cinder block masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1996-03-19	41	6.3	VII(11k)	24
1998-08-27	36	6.3	VIII(29k)	3
2003-02-24	36	6.3	VIII(3k)	261

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
VII	Guleluke	<1k
VI	**Wolituogelake**	**<1k**
VI	**Xekar**	**<1k**
VI	Kizilsu	<1k
VI	Hexia'awati	<1k
V	Gedaliang	<1k
V	Yingmaili	<1k
V	Tierimu	<1k
IV	**Kashgar**	**275k**
IV	Shache	83k
III	**At-Bashi**	**15k**

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

https://earthquake.usgs.gov/earthquakes/eventpage/us60007anp#pager

Event ID: us60007anp